

In the Abstract

ABSTRACT

A valve arrangement for controlling the flow of pressurized fluid between a working chamber and an outlet chamber that passes between a seal and a seat surrounding an orifice to the outlet chamber. Fluid flowing through the orifice produces a first turbulence produces a broad band sound that is within an acceptable audible level. An actuation force applied to an input rod after overcoming a force of a return spring moves the seal toward the seat to restrict the flow of fluid from the working chamber through the orifice. The restriction in the flow of fluid through the orifice produces a second turbulence in the fluid that is communicated to the outlet chamber. The seal has an annular ring that extends into the orifice to divert the flow of fluid having the second turbulence away from the return spring to attenuate the development of a reaction in the return spring that would significantly add to the broad band sound.